TITLE: VIRTUAL KEYBOARD AND CONTROL MEANS

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FIELD OF THE INVENTION

This invention relates to a data entry method on split space bar keyboards and an eight bit binary computer data code used as an eight dot braille arrangement, method of finger braille communication for the blind, deaf-blind, visually impaired, cerebral palsy, speech impaired, etc. and a method of producing a space, letters, numbers, data, symbols, characters, control, fonts, graphics, etc. on an eight sensor chordic data entry device or a split space bar keyboard.

BACKGROUND OF THE INVENTION

This patent application is an improvement on the invention found in U.S. Patent #5,993,089, in which a copyright and a patent was granted.

DESCRIPTION OF PRIOR ART

There are numerous well-known, prior art keyboards along with systems and methods for inputting data into typewriters, braille writers, word processors, phones, computers, laptops, keyboards, touch screen input devices, PDAs, cell phones, virtual keyboards and the like. Unfortunately, most modern systems are inherently slow, difficult to learn, not organized in a logical fashion and/or cumbersome for the general population, including the handicapped, visually impaired, speech impaired, motion disabled and the like. The most used prior art keyboard is the QWERTY keyboard which derives its name from the first six letters on the top row of the alphabet keys or sensors. The data entry touch typing method, invented by the blind, is the method taught to use the QWERTY keyboard. The QWERTY keyboard and QWERTY touch typing method has been around longer than any other keyboard, excluding the piano, and was originally designed to slow down typists so that manual typewriter keys would not jam. A good explanation of the history of the QWERTY keyboard is set forth in an article entitled "TYPING WITH A TWO-HAND CHORD KEYBOARD: WILL THE QWERTY BECOME OBSOLETE" by Daniel Gopher and David Raij, IEEE Transactions on Systems, Man, and Cybernetics, Volume 18, No. 4, July-August 1988, pages 601-609.

In response to the relatively slow and cumbersome QWERTY system, some new word processors and computers have moved to the improved Dvorak layout, although very few. One of the characteristics of the Dvorak keyboard is that the vowels a, o, e, u and i form the first five keys of the second alphabetic row of the keyboard. The United States Department of the Navy tested the Dvorak design and found it to produce up to a twenty percent increase in typing speeds. While improved efficiencies are possible and proven with the Dvorak keyboard, it still does have some drawbacks, the major one of which is that the keys are not laid out in an ergonomic fashion to follow the natural ergonomic positions of the hands and fingers. Moreover, because there are more keys than the operator has digits, it is necessary for the operator to continually move his or her hands and fingers up and down or left and right to find and depress the appropriate key or keys. This tends to reduce the overall speed of the typist.

In order to increase speed, the chordic keyboard was invented. There are a number of chordic keyboards on the market, some of which have sets of linear rows, some have curved rows, some have vertical rows or some have horizontal rows . The common denominator is that it has fewer keys than the common QWERTY keyboard or the Dvorak keyboard, and that chords are employed, i.e. combinations of keys or sensors, to enter or produce specific letters, numbers, symbols, characters or functions. The fastest data entry keyboard presently used is the court stenographer's phonetic chord keyboard. There are other keyboards and devices available for attachment to personal computers and the like, in order to provide additional functions or to increase the speed of data entry.

The patent literature describes a number of efforts to improve the speed and efficiency of data entry on keyboards. For example, U.S. Patent 4,680,572 to Meguire, et al. entitled CHORD ENTRY KEYING OF DATA FIELDS describes a keyboard arrangement, which in one embodiment, has eleven keys arranged in two sets of five, for either hand, and a common enter key located between the two hands. The system permits the entry of data in a chord-like fashion provided that the common function key is depressed during a predetermined time frame prior to or after the depression of the last data key. Efforts to arrange keyboard keys in a vertical fashion is also described in certain prior art literature. U.S. Patent 3,428,747 to Alferieff entitled MAN TO MACHINE COMMUNICATION KEYBOARD DEVICE discloses a keyboard arrangement in which the four digits and thumb of the right and left hands, respectively, are positioned adjacent to two sets of keyboards, each having five keys, that are vertical and substantially adjacent to each other. The keyboard system permits the entry of data into a computer, radio system, interface or the like.

Other keyboard apparatuses and systems of possible relevance include the following U.S. Patents:

329,675; 477,062; 506,718; 578,785; 753,318;
1,293,023; 1,409,386; 1,487,115; 1,733,605; 1,771,953;
1,932,914; 1,936,089; 1,998,063; 2,012,924; 2,028,516;
2,031,017; 2,040,248; 2,150,364; 2,187,592; 2,189,023;
2,190,752; 2,192,594; 2,200,807; 2,282,102; 2,312,138;
2,390,414; 2,428,605; 2,520,142; 2,532,228; 2,581,665;
2,616,198; 2,634,052; 2,641,769; 2,718,633; 2,823,468;
2,850,812; 2,972,140; 3,021,611; 3,022,878; 3,102,254;

3,166,856; 3,184;554; 3,197,889; 3,225,883; 3,234,664; 3,241,115; 3,277,587; 3,369,643; 3,375,497; 3,381,276; 3,428;747; 3,466,647; 3,507,376; 3,526,892; 3,582,554; 3,633,724; 3,675,513; 3,772,597; 3,781,802; 3,798,599; 3,818,448; 3,831,147; 3,831,296; 3,833,765; 3,879,722; 3,929,216; 3,945,482; 3,967,273; 3,970,185; 3,980,823; 3,982,236; 4,042,777; 4,067,431; 4,074,444; 4,132,976; 4,159,471; 4,185,282; 4,333,097; 4,350,055; 4,360,892; 4,467,321; 4,494,109; 4,516,939; 4,655,621; 4,680,572; 4,791,408; 4,804,279; 5,087,910; 5,217,311; 5,281,966; 5,361,083; 5,459,458; 5,486,058; 5,459,458; 5,515,305; 5,642,108, and an IBM Technical Disclosure Bulletin Vol. 18 No. 12 dated May 1976 entitled; DIGITAL X TYPEWRITER KEYBOARD which discloses two sets of five ergonomicly arranged keys for each hand, where each key is operated by one of the ten digits on the left and right hands. The two thumb keys each produce a space. The eight finger keys use a three position switch (down, away and toward) or a five position switch as home row keys. Downward activation produces home row data, away activation produces top alphabetic row data and toward activation produces bottom row data found on the QWERTY keyboard.

While the foregoing all appear to represent improvements in the art of keyboard systems, they nevertheless tend to be difficult to learn and difficult to use, especially by individuals who are sight, hearing, learning or motion impaired. Of all the patents and technologies researched, none use or claim an eight bit binary computer code used as a data entry means. The most relevant technologies to this patent application are IBM's three copyrighted seven bit codes (excluding the parity bit); the eight bit EBCDIC computer code (Extended Binary Coded Decimal Interchange Code), the eight bit ASCII (American Standard Code for Information Interchange) code and the extended ASCII computer code. The eight dot computer braille code is a top dot configured code and is read as an entire cell from top to bottom.

SUMMARY OF THE INVENTION

Briefly described, the present invention uses an eight bit binary code arrangement, read from left to right, on at least eight sensors using a four bit binary code combined with a four bit binary code system, read from left to right, to produce data. The first left binary bit of the binary code has the numeric value of one, the second left binary bit has the numeric value of two, the third left binary bit has the numeric value of four, the fourth left binary bit has the numeric value of eight, the fifth right binary bit has the numeric value of sixteen, the sixth right binary bit has the numeric value of thirty-two, the seventh right binary bit has the numeric value of sixty-four, and the last eighth right binary bit has the numeric value of one hundred and twenty-eight.

The present invention comprises an eight bit binary code for use as an alternative eight dot braille arrangement, an alphanumeric data entry system and method for chordic eight key or eight sensor binary keyboards or a method of finger braille communication for the deaf-blind.

Activation of at least one sensor enters an eight sensor data entry mode. Activation of at least one sensor can be an "ON" button, a "hot" key on a device, a mode change button, etc. Activating at least one sensor of at least eight sensors enters an eight sensor data entry mode. Activation of at least one sensor can be an "ON" button, a "hot" key on a device, a mode change button, etc. Activating all eight sensors enters an eight sensor data entry mode. Activation of all eight sensors can be eight sensors on a keyboard, eight sensors on a split space bar keyboard, eight sensors on a touch screen data entry device, etc.

The present invention produces a data character, function or data character string (macro) by activating at least one sensor of the eight sensors used. Activating at least one sensor of the eight sensors followed by the activation of at least one sensor of the eight sensors produces a secondary data character (upper-case letters / extended character sets), a function or a data character string (macro).

Activating at least one sensor of a first set of four sensors combined with an unused second set of four sensors produces a vowel. Activating at least one sensor of a first set of four sensors combined with the activation of at least one sensor of a second set of four sensors produces a vowel or a vowel with a diacritical mark. Activating at least one sensor of a first set of four sensors combined with the activation of at least one sensor of a second set of four sensors produces a consonant. An unused first set of four sensors combined with the activation of at least one sensor of a second set of four sensors produces a space. An unused first set of four sensors combined with the activation of at least one sensor of a second set of four sensors produces a punctuation mark. Activating at least one sensor of a first set of four sensors combined with the activation of at least one sensor of a second set of four sensors produces a symbol. Activating at least one sensor of a first set of four sensors combined with the activation of all the sensors of a second set of four sensors produces a number or a math function. Activating at least one sensor of a first set of four sensors combined with the activation of all the sensors except one sensor of a second set of four sensors produces a function.

The present invention also uses a split space bar keyboard as a data entry device where the fourth left binary bit has the numeric value of eight and is a left thumb sensor or a left space bar, and the fifth right binary bit has the numeric value of sixteen and is a right thumb sensor or a right space bar.

Any apparatus for entering data on at least eight sensors or on any two sensor apparatus moves an object in a first direction by activating a left sensor and moves an object in a second opposite direction by activating a right sensor.

Any apparatus for entering data on at least eight sensors or on any two sensor apparatus moves an object to the left by activating a left sensor and moves an object to the right by activating a right sensor. Any apparatus for entering data on at least eight sensors or on any two sensor apparatus rotates an object to the left by activating a left sensor and rotates an object to the right by activating a right sensor. Any apparatus for entering data on at least eight sensors or on any two sensor apparatus moves an object backward by activating a left sensor and moves an object forward by activating a right sensor. Any apparatus for entering data on at least eight sensors or on any two sensor apparatus moves an object forward by activating a left sensor and activating a right sensor simultaneously. Any apparatus for entering data on at least eight sensors or on any two sensor apparatus moves an object backward by activating a left sensor and a right sensor simultaneously followed by activating a left sensor and a right sensor simultaneously.

Any apparatus for entering data on at least eight sensors or on any two sensor apparatus moves the cursor to the left activating a left sensor and moves the cursor to the right by activating a right sensor. Any apparatus for entering data on at least eight sensors or on any two sensor apparatus deletes data to the left of the cursor by activating a left sensor and deletes data to the right of the cursor by activating a right sensor. Any apparatus for entering data on at least eight sensors or on any two sensor apparatus reverses the last change by activating a left sensor and reverses the last undo by activating a right sensor.

Any apparatus for entering data on at least eight sensors or on any two sensor apparatus exits a first data entry mode and enters a cursor movement mode by activating a left thumb sensor and a right thumb sensor simultaneously, followed by the activation of a left thumb sensor moves the cursor to the left and activation of a right thumb sensor moves a cursor to the right. Activating a left thumb sensor and a right thumb sensor simultaneously exits a cursor movement mode and enters a delete mode, followed by the activation of a left thumb sensor deletes data to the left of a cursor and activating a right thumb sensor deletes data to the right of a cursor. Activating a left thumb sensor and a right thumb sensor simultaneously exits a delete mode and re-enters a first data entry mode.

One preferred feature of the present invention uses at least eight sensors to produce secondary types of data by exiting a first mode and shifting into a second mode by the entry of at least one data character. The shift function is included in the eight sensor code allowing the ability to use the shift for entering secondary data sets. Shifting into a secondary mode like the bold, italics, underline, etc. mode, is produced by entering the b, i, u, etc.

Another feature of the present invention uses at least eight sensors to produce secondary types of language script data sets by exiting a first mode and shifting into a second mode by entering the language code data character string to produce a secondary language script data set. Entering the country code data character string produces a secondary language script data set. Entering the country's area code data character string produces a secondary language script data set.

The system and method of the invention is logically developed and implemented so that it is easy to learn and quick to use, especially for those who are handicapped or sight impaired.

These and other features of the present invention will be more fully understood by reference to the following drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1A-1P. Illustrates one preferred arrangement of the eight bit code embodiment of the disclosed invention.

FIG. 2. Illustrates a the frequency of letters used in the English language found in (a)press reporting, (b)religious writing, (c)scientific writing, (d)general fiction, (e)word averages and (f)Morse Code.

FIG. 3A. Illustrates one preferred layout of the eight bit code embodiment for lower-case letters.

FIG. 3B. Illustrates one preferred layout of the eight bit code embodiment for upper-case letters.

FIG. 3C. Illustrates one preferred layout of the eight bit code embodiment for punctuation.

FIG. 3D. Illustrates one preferred layout of the eight bit code embodiment for containment chords.

FIG. 3E. Illustrates one preferred layout of the eight bit code embodiment for horizontal and vertical lines.

FIG. 3F. Illustrates one preferred layout of the eight bit code embodiment for numbers.

FIG. 3G. Illustrates one preferred layout of the eight bit code embodiment for common math functions.

FIG. 3H. Illustrates one preferred layout of the eight bit code embodiment for functions.

FIG. 3I. Illustrates one preferred layout of the eight bit code embodiment for foreign letters.

FIG. 3J. Illustrates one preferred layout of the eight bit code embodiment for monetary symbols.

FIG. 3K. Illustrates one preferred layout of the eight bit code embodiment for control elements.

FIG. 3L. Illustrates one preferred layout of the eight bit code embodiment for symbols.

FIG. 4A. Illustrates one preferred arrangement of the eight bit code embodiment as a tactile eight dot braille cell on the bottom and the standard six dot braille cell on top. The standard six dot braille requires only one cell to represent lower-case letters and requires two cells to represent upper-case letters.

FIG. 4B. Illustrates one preferred arrangement of the eight bit code embodiment as a tactile eight dot braille cell on the bottom and the standard six dot braille cell on top. The standard six dot braille requires two cells to represent numbers.

FIG. 4C. Illustrates one preferred arrangement of the eight bit code embodiment as a tactile eight dot braille cell on the bottom and the standard six dot braille cell on top. The standard six dot braille requires only one cell to represent some punctuation and very few symbols.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

During the course of this description, the reverse binary numeric value (#0)-(#255) will be used to identify like elements according to the different figures and tables which illustrate the invention. For ease of discussion, during the course of this description, the Phone Code, the left (1-4-7-*) and right (#-9-6-3) rows on a standard twelve button phone, will also be used to easily identify like elements according to the different figures and tables which illustrate the invention. The correlation between the Reverse binary (code), KEYS pressed (QWERTY keyboard), Fingers (used) and Finger Braille (sender) tables is understood as the same code arrangement with different representations. In the KEYS pressed for the QWERTY keyboard table, "<" is the left space bar and ">" is the right space bar. A useful mnemonic technique is to remember the preferred right hand digit representation is by the phonetic word TIMR (timer) which stands for the thumb (T), index (I), middle (M), and ring (R) digits. In order to more fully understand the invention, the preferred embodiment of the invention is shown in FIGS. 1A-1P and is restructured for easier learning and memorization in FIGS. 3A-3L. FIG. 2 shows the frequency of letters used in the English language and the mnemonic logic of invention shown in FIGS. 3A-3L. The preferred embodiment of the invention is also shown in FIGS 4A-4B as eight dot braille arrangement.

The present invention uses an eight bit binary code arrangement read from left to right on at least eight sensors using a four bit binary code combined with a four bit binary code system, read from left to right, to produce data. The first left binary bit of the binary code has the numeric value of one and is preferably a ring digit sensor, the second left binary bit has the numeric value of two and is preferably a middle digit sensor, the third left binary bit has the numeric value of four and is preferably an index digit sensor, the fourth left binary bit has the numeric value of eight and is preferably a thumb digit sensor, the fifth right binary bit has the numeric value of sixteen and is preferably a thumb digit sensor, the sixth right binary bit has the numeric value of thirty-two and is preferably an index digit sensor, the seventh right binary bit has the numeric value of sixty-four and is preferably a middle digit sensor, and the last eighth right binary bit has the numeric value of one hundred and twenty-eight and is preferably a ring digit sensor.

One preferred arrangement of the eight bit code embodiment is illustrated in FIG. 1A-1P. The data entry keyboard system includes at least eight binary sensors divided up into two sets of four binary sensors each. A first set of four sensors includes four binary sensors which are preferably adapted to be depressed or activated, respectively, by the ring digit, middle digit, index digit and thumb digit of the first preferred left hand group of the operator. The little digit of the first preferred left hand group is not used according to the preferred embodiment, but can be used instead of the thumb. Similarly, a second set includes the following four binary sensors which are preferably adapted to be depressed or activated, respectively, by the thumb digit, index digit, middle digit and ring digit of the second preferred right hand group of the operator. The little digit of the second preferred right hand group is not used, according to the preferred embodiment, but can be used instead of the thumb.

The present invention comprises an eight bit binary code for use as an alternative eight dot braille arrangement, an alphanumeric data entry system and method for chordic eight key or eight sensor binary keyboards or a method of finger braille communication for the deaf-blind.

Activation of at least one sensor enters an eight sensor data entry mode. Activation of at least one sensor can be an "ON" button, a "hot" key on a device, a mode change button, etc. Activating at least one sensor of at least eight sensors enters an eight sensor data entry mode. Activation of at least one sensor of the eight sensors used can be an "ON" button, a "hot" key on a device, a mode change button, etc. Activating all eight sensors enters an eight sensor data entry mode. Activation of all eight sensors can be eight sensors on a keyboard, eight sensors on a split space bar keyboard, eight sensors on a touch screen data entry device, etc.

The present invention produces a data character, function or data character string (macro) by activating at least one sensor of the eight sensors used. Activating at least one sensor of the eight sensors combined with the activation of at least one sensor of the eight sensors produces a secondary data character (upper-case letters / extended character sets), a function or a data character string (macro).

The entry of vowels is produced with a first group of four binary sensors activated by four digits of the first group or preferred left hand. The entry of consonants is produced with a second group of four binary sensors activated by four digits of the second group or preferred right hand in simultaneous combination with the consonant's preceding binary vowel chord produced on a first group of four binary sensors activated by the four digits of the first group or preferred left hand.

Activating at least one sensor of a first set of four sensors combined with an unused second set of four sensors produces a vowel. Activating at least one sensor of a first set of four sensors combined with the activation of at least one sensor of a second set of four sensors produces a vowel or a vowel with a diacritical mark found in non-English alphabet based languages.

The vowels "a", "e", "i", and "o" are produced by a binary key or sensor of a first set of four binary sensors activated by a first group of four digits of the first preferred left hand from right to left by independently activating the preferred thumb digit for the "a", the preferred index digit for the "e", the preferred middle digit for the "i" or preferred ring digit for the "o", respectively, of the first group of four digits of the preferred left first hand group against the corresponding binary key or sensor of the first set of four binary sensors. The vowel "u" is produced by simultaneously activating the two inside binary sensors of a first set of four binary sensors by the two inside digits, the preferred index and middle digit of the first group of four digits of the preferred left first hand group. The vowel "y" is produced by simultaneously activating the two outside binary sensors of a first set of four binary sensors by the two outside digits, the preferred ring and thumb digits of the first group of four digits of the preferred left first hand group.

Lower-case letters are produced according to the table illustrated in FIG. 3A. The vowels "a"(#8), "e"(#4), "i"(#2) and "o"(#1) are produced by independently activating, respectively, the four binary sensors (*), (7), (4) and (1) of the preferred left first set by the preferred thumb digit (*), the preferred index digit (7), the preferred middle digit (4) and the preferred ring digit (1) on the preferred left first hand group, respectively. The vowel "u" (#6) is produced by simultaneously activating the two inner binary senors by the middle digit (4) and the index digit (7). These are the two inside digits of the preferred left first hand group and is logically suggestive of the vowel "u" used in sign language for the deaf. The occasional vowel "y" (#9) is produced by simultaneously activating the two outer binary senors by the ring digit (1) and the thumb digit (*). These are the two outside digits of the preferred left first hand group and is logically suggestive of the vowel "y" used in sign language for the deaf.

All consonants are produced by a second set of four binary sensors by depression or activation with the preferred right second hand group binary chords in simultaneous combination with binary vowel chords produced on the first set of four binary sensors by the preferred left first hand group. The keyboard system and method takes advantage of the fact that the vowels "a"(#8), "e"(#4), "i"(#2), "o"(#1), "u"(#6)" and "y"(#9) are somewhat evenly distributed throughout the alphabet separated by either three or five consonants in each case. There are five consonants following the vowels "i" and "o". In the vowel "i" binary consonant chord grouping, the consonants "l"(#34), "m"(#66) and "n"(#130) are the consonants more frequently used, and in the vowel "o" binary consonant chord grouping, the consonants "r"(#33), "s"(#65) and "t"(#129) are the consonants more frequently used. Therefore, the least used consonants "j"(#98), "k"(#194) and "p"(#97), "q"(#193) are given an extra binary bit each for their preferred right second hand group binary consonant chords. FIG. 3A. is a table summarizing the manner in which lower case English language alphabet letters "a"(#8) through "z"(#41) are produced; either by use of the first set of four binary sensors depressed or activated by the preferred left first hand group exclusively (in the case of producing vowels), or through the use of the first set of four binary sensors depressed or activated by the preferred left first hand group in simultaneous combination with the second set of four binary sensors depressed or activated by the preferred right second hand group to produce consonants.

Activating at least one sensor of a first set of four sensors combined with the activation of at least one sensor of a second set of four sensors produces a consonant.

Consonants are produced by simultaneously producing a binary vowel chord with the first set of four binary sensors by a first group of four digits of the preferred left first hand group and simultaneously activating the appropriate binary sensors of a second set of four binary sensors with the second group of four digits, the preferred thumb, index, middle or ring digit or digits of the preferred right second hand group. Because the vowels a, e, i, o, u and y are relatively evenly distributed throughout the alphabet, it makes logical sense to form the consonants "b"(#40), "c"(#72) and "d"(#136) with the depression or activation of a binary key or sensor by the preferred thumb digit of the preferred left first hand group, the vowel "a"(#8), in simultaneous combination with the depression or activation of a binary key or sensor of a second set of four binary sensors by the index digit for the consonant "b", middle digit for the consonant "c" and ring digit for the consonant "d", respectively, of the second group of four digits of the preferred right second hand group.

An unused first set of four sensors combined with the activation of at least one sensor of a second set of four sensors produces a space. Independent activation of the first preferred right thumb binary key or sensor (#) produces a "space".

Lower-case letters are produced according to the table illustrated in FIG. 3A.

Activating (#) produces "space"(#16),
activating (*) produces "a"(#8),
activating (*)(9) produces "b"(#40),
activating (*)(6) produces "c"(#72),
activating (*)(3) produces "d"(#136),
activating (7) produces "e"(#4),
activating (7)(9) produces "f"(#36),
activating (7)(6) produces "g"(#68),
activating (7)(3) produces "h"(#132),
activating (4) produces "i"(#2),
activating (4)(9)(6) produces "j"(#98),
activating (4)(6)(3) produces "k"(#194),
activating (4)(9) produces "l"(#34),

activating (4)(6) produces “m”(#66),
activating (4)(3) produces “n”(#130),
activating (1) produces “o”(#1),
activating (1)(9)(6) produces “p”(#97),
activating (1)(6)(3) produces “q”(#193),
activating (1)(9) produces “r”(#33),
activating (1)(6) produces “s”(#65),
activating (1)(3) produces “t”(#129),
activating (4)(7) produces “u”(#6),
activating (4)(7)(9) produces “v”(#38),
activating (4)(7)(6) produces “w”(#70),
activating (4)(7)(3) produces “x”(#134),
activating (1)(*) produces “y”(#9), and
activating (1)(*)(9) produces “z”(#41).

Independent activation of the first preferred right thumb binary key or sensor (#) produces a “space”. Activation of the first preferred right thumb binary key or sensor (#) produces the “Shift” function when combined with a vowel or a consonant.

Capital letters are produced according to the table illustrated in FIG. 3B.

Activating (#) produces “space”(#16),
activating (*)(#) produces “A”(#24),
activating (*)(#)(9) produces “B”(#56),
activating (*)(#)(6) produces “C”(#88),
activating (*)(#)(3) produces “D”(#152),
activating (7)(#) produces “E”(#20),
activating (7)(#)(9) produces “F”(#52),
activating (7)(#)(6) produces “G”(#84),
activating (7)(#)(3) produces “H”(#148),
activating (4)(#) produces “I”(#18),
activating (4)(#)(9)(6) produces “J”(#114),
activating (4)(#)(6)(3) produces “K”(#210),

activating (4)(#)(9) produces "L"(#50),
activating (4)(#)(6) produces "M"(#82),
activating (4)(#)(3) produces "N"(#146),
activating (1)(#) produces "O"(#17),
activating (1)(#)(9)(6) produces "P"(#113),
activating (1)(#)(6)(3) produces "Q"(#209),
activating (1)(#)(9) produces "R"(#49),
activating (1)(#)(6) produces "S"(#81),
activating (1)(#)(3) produces "T"(#145),
activating (4)(#)(7) produces "U"(#22),
activating (4)(#)(7)(9) produces "V"(#54),
activating (4)(#)(7)(6) produces "W"(#86),
activating (4)(#)(7)(3) produces "X"(#150),
activating (1)(#)(*) produces "Y"(#25), and
activating (1)(#)(*)(9) produces "Z"(#57).

An unused first set of four sensors combined with the activation of at least one sensor of a second set of four sensors produces a punctuation mark.

Shown in the table in FIG. 3c, punctuation marks are produced using only the second set of four binary sensors depressed or activated by the preferred right second hand group. The logic behind using the preferred right second hand group only is that most punctuation occurs at the far right end of a group of words or a sentence.

Punctuation is produced according to the table illustrated in FIG. 3C.

Activating (9) produces "."(#32),
activating (3) produces ","(#128),
activating (6) produces "!"(#64),
activating (#)(9)(6) produces "?"(#112),
activating (9)(6) produces ":"(#96),

activating (9)(3) produces ";"(#160),
activating (#)(9)(3) produces """(#176), and
activating (#)(3) produces "'"(#144).

Activating at least one sensor of a first set of four sensors combined with the activation of at least one sensor of a second set of four sensors produces a symbol.

Monetary symbols are produced according to the table illustrated in FIG. 3J.

Activating (1)(4)(6) produces "¢"(#67),
activating (1)(4)(3) produces "₢"(#131),
activating (1)(4) produces "¤"(#3),
activating (1)(4)(9) produces "€"(#35),
activating (1)(4)(#)(9) produces "₤"(#51),
activating (1)(4)(#)(9) produces "%"(#99),
activating (1)(4)(6)(3) produces "#"(#195),
activating (1)(4)(#)(9)(6) produces "£"(#115),
activating (1)(4)(#)(6) produces "$"(#83),
activating (1)(4)(#) produces "¥"(#19), and
activating (4)(*)(#)(6) produces "*"(#165).

It is possible to choose a variety of data entry choices including containment groups, movement chords, operating chords (e.g., enter, tab, shift, insert, etc.), Latin based foreign language letters, consonants and punctuation, punctuation marks, monetary symbols, symbols and graphics, chords, containment chords, etc.

For example, the table in FIG. 3H illustrates certain binary containment chord groups that have mirror image binary chords. Containment groups are instructions like brackets [ ], parentheses ( ), etc. It is also useful to provide the common movement instructions such as moving a cursor up or down, tab, home,. page up or down, etc.

Containment chords are produced according to the table illustrated in FIG. 3D.

Activating (4)(*) produces “(”(#10),
activating (#)(6) produces “)”(#80),
activating (1)(4)(*) produces “[”(#11),
activating (#)(6)(3) produces “]”(#208),
activating (1)(7)(*)(3) produces “{”(#141),
activating (1)(#)(9)(3) produces “}”(#177),
activating (7)(9)(3) produces “<”(#164),
activating (1)(7)(9) produces “>”(#37),
activating (4)(7)(*)(#)(9) produces “«”(#62),
activating (7)(*)(#)(9)(6) produces “»”(#124),
activating (1)(7)(*) produces “““(#13), and
activating (#)(9)(3) produces “””(#176).

Control element chords are produced according to the table illustrated in FIG. 3K.

Activating (9)(6)(3) produces “Enter”(#7),
activating (1)(4)(*)(#) produces “Esc”(#27),
activating (6)(3) produces “Tab”(#192),
activating (4)(7)(*)(#) produces “PgUp”(#30),
activating (4)(7)(*)(3) produces “PgDn”(#142),
activating (1)(4)(7)(*)(#) produces “Up”(#31),
activating (1)(4)(7)(*)(3) produces “Down”(#143),
activating (1)(4)(7)(*)(#)(9) produces “Left”(#63),
activating (1)(4)(7)(*)(6)(3) produces “Right”(#207),
activating (1)(4)(7)(*)(9)(6) produces “Home”(#111),
activating (4)(7)(*)(#)(6) produces “End”(#94),
activating (1)(4)(7)(*)(#)(9)(3) produces “Shift”(#191),
activating (1)(4)(7)(*)(9)(3) produces “Shift Out”(#175),

activating (1)(4)(7)(*)(9) produces "Ctrl"(#47),
activating (1)(4)(7)(*)(#)(6)(3) produces "Alt"(#223),
activating (1)(4)(7)(*)(#)(9)(6)(3) produces "Ins"(#255), and
activating (1)(4)(7)(*) produces "Delete"(#15).

Horizontal and vertical lines are produced according to the table illustrated in FIG. 3E.

Activating (1)(4)(7)(#) produces "_"(#23),
activating (1)(4)(7)(9) produces "\"(#39),
activating (1)(4)(7)(6) produces "|"(#71), and
activating (1)(4)(7)(3) produces "/"(#135).

Activating at least one sensor of a first set of four sensors combined with the activation of all the sensors of a second set of four sensors produces a number or a math function.

The system enters or produces the number mode by the simultaneous depression or activation of a second set of four binary sensors by a second group of four digits, the preferred thumb, index, middle and ring digits of the preferred right second hand group in simultaneous combination with the entry or production of the desired specific binary number chord with the four digits on the first group of four digits of the preferred left hand group. The preferred left first hand group digits enter or produce the specific chosen binary number chords between 0 and 9 in a reverse binary abacus chordic fashion with the preferred ring digit binary key or sensor of the preferred left first hand group producing the binary number "1" (#241), the preferred middle digit binary key or sensor producing the binary number "2" (#242), the preferred index digit binary key or sensor producing the binary number "4" (#244), the preferred thumb digit binary key or sensor producing the binary number "8" (#248), then using binary combinations of the first set of four binary sensors to produce the desired number. The numbers "10" (#250), "11" (#250), "12" (#250), "13" (#250) and "14" (#250) are used to produce the common math functions, where the binary number 10 chord produces the addition function "+"(#250), the binary number 11 chord produces the subtraction function "-"(#251), the binary number 12 chord produces the multiplication function "×"(#252), the binary number 13 chord produces the division function "÷"(#253) and the binary number 14 chord produces the equals function "="(#254).

FIG. 3F. is a table illustrating the manner in which binary number chords are produced. In order to enter or produce a number, the operator substantially simultaneously depresses or activates all four binary sensors (#)(9)(6)(3) of a second set of four binary sensors depressed or activated with the preferred digits the thumb, index, middle and ring digits of the preferred right second hand group and selects the desired binary number chord for entry with the first set of four binary sensors depressed or activated by the preferred left first hand group. An unused feature of the keyboard system and method according to the preferred embodiment is that the individual numbers are produced in reverse binary notation starting with the first preferred ring digit of the preferred left first hand group and ending with the eighth preferred thumb digit. If no binary sensor of the first left set of sensors is depressed or activated, then the number "0" (#240) is produced. Depression or activation of the far left first binary key or sensor (1) by the left ring digit enters produces the number "1" (#241), assuming, of course, that all of the binary sensors (#)(9)(6)(3) of the second preferred right set of four binary sensors are or has been substantially simultaneously depressed or activated. In this fashion it is possible to enter or produce the individual numbers "0" (#240) through "9" (#249) by the simultaneous binary chordic depression or activation of all of the four binary sensors of the second set of sensors along with the appropriate depression or activation of one or more binary sensors of the first set of sensors in a reverse binary fashion to produce the desired binary number. Exiting a number mode or any mode can be achieved by using the "shift out" (#175) function. The reason that a reverse binary fashion is chosen is that it is more common to read Latin based alphanumeric data from left to right in the same fashion that letters in words are read in the English language. This keeps the data entry system and method consistent in its format and is an easier way for people to learn to enter information using the system of data entry.

Common binary math function chords are illustrated in the table of FIG. 3G. The reverse binary equivalents of the numbers "10" (#250) through "14" (#254) are used, respectively, by the number "10" (#250) binary chord to represent or produce the addition "+" symbol or function, the number "11" (#251) binary chord to represent or produce the multiplication "–" ~~"×"~~ symbol or function, the number "12" (#252) binary chord to represent or produce the subtraction "×" ~~"-"~~ symbol or function, the number "13" (#253) binary chord to represent or produce the division "÷" symbol or function and the number "14" (#254) binary chord to represent or produce the equals "=" symbol or function.

Numbers are produced according to the table illustrated in FIG. 3F.

Activating (#)(9)(6)(3) produces "0"(#240),
activating (1)(#)(9)(6)(3) produces "1"(#241),
activating (4)(#)(9)(6)(3) produces "2"(#242),
activating (1)(4)(#)(9)(6)(3) produces "3"(#243),
activating (7)(#)(9)(6)(3) produces "4"(#244),
activating (1)(7)(#)(9)(6)(3) produces "5"(#245),
activating (4)(7)(#)(9)(6)(3) produces "6"(#246),
activating (1)(4)(7)(#)(9)(6)(3) produces "7"(#247),
activating (*)(#)(9)(6)(3) produces "8"(#248),and
activating (1)(*)(#)(9)(6)(3) produces "9"(#249).

Common math functions are produced according to the table illustrated in FIG. 3G.

Activating (4)(*)(#)(9)(6)(3) produces "+"(#250),
activating (1)(4)(*)(#)(9)(6)(3) produces "-"(#251),
activating (7)(*)(#)(9)(6)(3) produces "×"(#252),
activating (1)(7)(*)(#)(9)(6)(3) produces "÷"(#253), and

activating (4)(7)(*)(#)(9)(6)(3) produces "="(#254).

Activating at least one sensor of a first set of four sensors combined with the activation of all the sensors except one sensor of a second set of four sensors produces a function.

Fifteen functions are also obtainable. The system produces the numeric function by the simultaneous depression or activation of a second set of four binary sensors by a second group of four digits, the preferred index, middle and ring digits of the preferred right second hand group in simultaneous combination with the desired specific binary number chord with the four digits on the first group of four digits of the preferred left hand group. The preferred left first hand group digits enter or produce the specific chosen binary number chords between 0 and 9 in a reverse binary abacus chordic fashion with the preferred ring digit binary key or sensor of the preferred left first hand group producing the binary number "1" (#241), the preferred middle digit binary key or sensor producing the binary number "2" (#242), the preferred index digit binary key or sensor producing the binary number "4" (#244), the preferred thumb digit binary key or sensor producing the binary number "8" (#248), then using binary combinations of the first set of four binary sensors to produce the desired number.

In order to expand the utility of the system, it is important to be able to choose from other function modes. Multifunction binary chord choices are produced according to the table illustrated in FIG. 3H. The multifunction binary chord mode choice is initiated or produced by the substantially simultaneous depression or activation of a second set of four binary sensors depressed or activated by the preferred index digit, middle digit and ring digit of the preferred right second hand group, in simultaneous combination with the appropriate reverse binary choice of chords on a second set of four binary sensors depressed or activated by the four digits of the preferred left first hand group. Up to 15 function mode choices are possible (F1-F15) given the fact that there are four binary sensors and 15 different distinct binary chordic combinations possible using four sensors, given the particular binary chordic choice. Note that the functions F1-F15 correspond one for one with the reverse binary number chosen while in the number mode by the four digits of the preferred left first hand group.

Functions are produced according to the table illustrated in FIG. 3H.

Activating (1)(9)(6)(3) produces “F1”(#225),
activating (4)(9)(6)(3) produces “F2”(#226),
activating (1)(4)(9)(6)(3) produces “F3”(#227),
activating (7)(9)(6)(3) produces “F4”(#228),
activating (1)(7)(9)(6)(3) produces “F5”(#229),
activating (4)(7)(9)(6)(3) produces “F6”(#230),
activating (1)(4)(7)(9)(6)(3) produces “F7”(#231),
activating (*)(9)(6)(3) produces “F8”(#232),

activating (1)(*)(9)(6)(3) produces “F9”(#233),
activating (4)(*)(9)(6)(3) produces “F10”(#234),
activating (1)(4)(*)(9)(6)(3) produces “F11”(#235),
activating (7)(*)(9)(6)(3) produces “F12”(#236),
activating (1)(7)(*)(9)(6)(3) produces “F13”(#237),
activating (4)(7)(*)(9)(6)(3) produces “F14”(#238), and
activating (1)(4)(7)(*)(9)(6)(3) produces “F15”(#239).

The preferred input keyboard comprises eight binary sensors arranged in two sets of four binary sensors each. The first set of four binary sensors is preferably adapted for convenient ergonomic depression or activation by the preferred thumb, index, middle and ring digits on the four digits of a first group or preferred left hand. Similarly, the second set of four binary sensors is arranged for convenient ergonomic depression or activation by four digits of a second group by the preferred thumb, index, middle and ring digits on the four digits of a second group or preferred right hand. The two sets of four binary sensors are preferably arranged where each binary key or sensor is located directly beneath the finger tip of the activating digit, of an ergonomicly positioned hand, preferably in two ergonomicly correct mirror imaged pairs to best accommodate the natural ergonomicly relaxed hand position of the digits on the hands of a data entry keyboard operator. Alternatively, the two sets may be arranged in two vertical or horizontal mirror imaged rows of adjacent crescents. The keyboard can also mimic the layout of an 8-dot braille cell character arrangement which is shown in FIGS.4A-4C.

The present invention also uses a split space bar keyboard as a data entry device where the fourth left binary bit has the numeric value of eight and is a left thumb sensor or a left space bar, and the fifth right binary bit has the numeric value of sixteen and is a right thumb sensor or a right space bar.

One preferred keyboard embodiment includes a first set of four sensors (1)(4)(7)(*), preferably including a left space bar for activation by a left thumb and a second set of four sensors (#)(9)(6)(3), preferably including a right space bar for activation by a right thumb. The first set of four sensors (1)(4)(7)(*) includes four binary sensors which are preferably adapted to be depressed or activated, respectively, by the preferred ring digit, middle digit, index digit and thumb digit on the left hand of the operator. Similarly, the second set of four sensors (#)(9)(6)(3), includes four binary sensors which are preferably adapted to be depressed or activated, respectively, by the preferred ring digit, middle digit, index digit and thumb digit on the right hand of the operator.

Any apparatus for entering data on at least eight sensors or on any two sensor apparatus moves an object in a first direction by activating a left sensor and moves an object in a second opposite direction by activating a right sensor. Movement within a virtual reality environment can easily be obtained by using a left sensor and a right sensor. Movement for a robot or a machine can easily be obtained by using a left sensor and a right sensor. A computer mouse can be one preferred embodiment of the invention. Any apparatus for entering data on at least eight sensors or on any two sensor apparatus moves an object to the left by activating a left sensor and moves an object to the right by activating a right sensor. Any apparatus for entering data on at least eight sensors or on any two sensor apparatus rotates an object to the left by activating a left sensor and rotates an object to the right by activating a right sensor. Any apparatus for entering data on at least eight sensors or on any two sensor apparatus moves an object backward by activating a left sensor and moves an object forward by activating a right sensor. Any apparatus for entering data on at least eight sensors or on any two sensor apparatus moves an object forward by activating a left sensor and activating a right sensor simultaneously. Any apparatus for entering data on at least eight sensors or on any two sensor apparatus moves an object backward by activating a left sensor and a right sensor simultaneously followed by activating a left sensor and a right sensor simultaneously.

The same logic can be used on a data entry device for a computer, typewriter or mouse. One preferred keyboard design would be the split space bar QWERTY keyboard. Any apparatus for entering data on at least eight sensors or on any two sensor apparatus moves the cursor to the left activating a left sensor or left space bar and moves the cursor to the right by activating a right sensor or right space bar. Any apparatus for entering data on at least eight sensors or on any two sensor apparatus deletes data to the left of the cursor by activating a left sensor or left space bar and deletes data to the right of the cursor by activating a right sensor or right space bar. Any apparatus for entering data on at least eight sensors or on any two sensor apparatus reverses the last change by activating a left sensor or left space bar and reverses the last undo by activating a right sensor or right space bar.

Any apparatus for entering data on at least eight sensors or on any two sensor apparatus exits a first data entry mode and enters a cursor movement mode by activating a left thumb sensor or left space bar and a right thumb sensor or right space bar simultaneously, followed by the activation of a left thumb sensor or left space bar moves the cursor to the left and activation of a right thumb sensor or right space bar moves a cursor to the right. Activating a left thumb sensor or left space bar and a right thumb sensor or right space bar simultaneously exits a cursor movement mode and enters a delete mode, followed by the activation of a left thumb sensor or left space bar deletes data to the left of a cursor and activating a right thumb sensor or right space bar deletes data to the right of a cursor. Activating a left thumb sensor or left space bar and a right thumb sensor or right space bar simultaneously exits a delete mode and re-enters a first data entry mode.

One preferred feature of the present invention uses at least eight sensors to produce secondary types of data by exiting a first mode and shifting into a second mode by the entry of at least one data character. The one data character can be a non-English lower-case letter, where the shift produces an non-English upper-case letter. The shift function is included in the eight bit code allowing the ability to use the shift for entering secondary data sets. Shifting into (#191) a secondary mode like the bold, italics, underline, etc. mode, is produced by entering the b, i, u, etc. Exiting a mode or any modes can be achieved by using the "shift out" (#175) function.

Because there are a total of eight binary sensors, it is possible to form a total of 255 binary chordic combinations (2×2×2×2×2×2×2×2 = 256). These combinations are summarized in the table illustrated in FIGS. 1A-1P. If activation of the shifting chord combination is employed, "Shift" (#191), it offers the potential of entering a secondary sets of 255 unassigned eight bit binary chord groups, which can be used for a multiplicity of modes, such as different types or sizes of fonts, bold mode, italics mode, underline mode, highlight mode, language scripts, country scripts or whatever extra mode is required, a feature which substantially expands the capability of the invention. The shift function is part of the eight sensor code. Since the shift function is not used to produce an upper-case vowel or consonant, combining it with an upper-case or lower-case vowel or consonant enters a secondary keyboard mode. Producing the shift function combined with a “b” and followed by the activation of the enter function enters the bold mode. Producing the shift function combined with a “i” and followed by the activation of the enter function enters the italics mode. Producing the shift function combined with a u” and followed by the activation of the enter function enters the underline mode. Producing the shift function combined with a “h” and followed by the activation of the enter function enters the highlight mode. Producing the shift function combined with any vowel, consonant, number, function, letters, numbers, etc. and preferably followed by the activation of the enter function enters a multiplicity of possible modes. Exiting a mode or any modes can be achieved by using the “shift out” (#175) function.

Another feature of the present invention uses at least eight sensors to produce secondary types of language script data sets by exiting a first mode and shifting into a second mode by entering the language code data character string to produce a secondary language script data set. Entering the country code data character string produces a secondary language script data set. Entering the country’s area code data character string produces a secondary language script data set. Exiting a mode or any modes can be achieved by using the "shift out" (#175) function.

Using the ISO Alpha-2 and Alpha-3 language codes as a way of assigning names to secondary eight bit data character sets, is one possible way of producing the secondary chordic combinations sets for any and all language alphabet scripts or character sets. Entry of the preferred Alpha-2 and Alpha-3 language codes exits the standard eight bit binary chordic data entry method mode, found in this patent application, and enters a secondary eight bit binary chordic data entry method mode set. Languages with extensive alphabet scripts or character sets, like Chinese, requires an eight bit binary data chord followed by an extra secondary eight bit binary data chord. Reassigning the present eight bit binary code invention arrangement, without departing from the spirit and scope of the invention as a whole, produces all language alphabet scripts or character sets.

ab	or	abk	for	Abkhazian
		ace	for	Achinese
		ach	for	Acoli
		ada	for	Adangme
om	or	gal/orm	for	Afan (Oromo)
aa	or	aar	for	Afar
		afh	for	Afrihili (Artificial language)
af	or	afr	for	Afrikaans
		afa	for	Afro-Asiatic (Other)
		aka	for	Akan
		akk	for	Akkadian
sq	or	alb/sqi	for	Albanian

		ale	for	Aleut
		alg	for	Algonquian languages
		ajm	for	Aljamia
		tut	for	Altaic (Other)
		cai	for	American, Central Indian (Other)
		nai	for	American Indian, North (Other)
		sai	for	American Indian, South (Other)
am	or	amh	for	Amharic
		apa	for	Apache languages
ar	or	ara	for	Arabic
		arc	for	Aramaic
		arp	for	Arapaho
		arn	for	Araucanian
		sam	for	Aramaic, Samaritan
		arw	for	Arawak
hy	or	arm/hye	for	Armenian
		art	for	Artificial (Other)
		afa	for	Asiatic, Afro- (Other)
as	or	asm	for	Assamese
		ath	for	Athapascan languages
		aus	for	Australian languages
		map	for	Austronesian (Other)
		ava	for	Avaric (Avar)
		ave	for	Avestan
		awa	for	Awandhi
ay	or	aym	for	Aymara (Aymará)
az	or	aze	for	Azerbaijani
		nah	for	Aztec
		ban	for	Balinese
		bat	for	Baltic (Other)
		bal	for	Baluchi
		bam	for	Bambara
		bai	for	Bamileke languages
		bad	for	Banda
		bnt	for	Bantu (Other)
		bas	for	Basa (Kru)
ba	or	bak	for	Bashkir
eu	or	baq/eus	for	Basque

		bej	for	Beja
		bel	for	Belorussian (Belarusian)
		bem	for	Bemba
bn	or	ben	for	Bengali (Bangla)
		ber	for	Berber languages
		bho	for	Bhojpuri
dz			for	Bhutani
bh	or	bih	for	Bihari
		bik	for	Bikol
		bin	for	Bini
bi	or	bis	for	Bislama
		nob	for	Bokmål, Norwegian
		bos	for	Bosnian
		bra	for	Braj
br	or	bre	for	Breton
		bug	for	Buginese
bg	or	bul	for	Bulgarian
		bua	for	Buriat
my	or	bur/mya	for	Burmese
		bel	for	Burushaski
be			for	Byelorussian
		cad	for	Caddo
km	or	khm	for	Cambodian (Khmer)
		car	for	Carib
		spa	for	Castilian
ca	or	cat	for	Catalan
		cau	for	Caucasian (Other)
		ceb	for	Cebuano
		cel	for	Celtic (Other)
		cai	for	Central American Indian (Other)
		chg	for	Chagatai
		cmc	for	Chamic languages
		cha	for	Chamorro
		che	for	Chechen
		chr	for	Cherokee
		chy	for	Cheyenne
		chb	for	Chibcha
		nya	for	Chichewa

zh	or	chi/zho	for	Chinese
		chn	for	Chinook jargon
		chp	for	Chipewyan
		cho	for	Choctaw
		chu	for	Church Slavic
		chk	for	Chuukese
		chv	for	Chuvash
		cop	for	Coptic
		cor	for	Cornish
co	or	cos	for	Corsican
		cre	for	Cree
		mus	for	Creek
		crp	for	Creoles and pidgins (Other)
		cpe	for	Creoles and pidgins,English (Other)
		cpf	for	Creoles and pidgins, French (Other)
		cpp	for	Creoles and pidgins,Portuguese (Other)
hr	or	scr/hrv	for	Croatian (Serbo-Croatian)
		cus	for	Cushitic (Other)
cs	or	ces/cze	for	Czech
		dak	for	Dakota
da	or	dan	for	Danish
		day	for	Dayak
		del	for	Delaware
		din	for	Dinka
		div	for	Divehi
		doi	for	Dogri
		dgr	for	Dogrib
		dra	for	Dravidian (Other)
		dua	for	Duala
nl	or	dut/nld	for	Dutch
		dum	for	Dutch, Middle (ca. 1050-1350)
		dyu	for	Dyula
		dzo	for	Dzongkha
		efi	for	Efik
		egy	for	Egyptian (Ancient)
		eka	for	Ekajuk
		elx	for	Elamite
en	or	eng	for	English

		en-cokney	for	English (London docks dialect)
		enm	for	English, Middle (1100-1500)
		ang	for	English, Old (ca. 450-1100)
		cpe	for	English-based Creoles & pidgins (Other)
		esk	for	Eskimo (Other)
eo	or	epo/esp	for	Esperanto
et	or	est	for	Estonian
		eth	for	Ethiopic
		ewe	for	Ewe (Fon)
		ewo	for	Ewondo
		fan	for	Fang
		fat	for	Fanti
fo	or	fao/far	for	Faroese
fj	or	fij	for	Fijian (Fiji)
fi	or	fin	for	Finnish
		fiu	for	Finno-Ugrian (Other)
		fon	for	Fon
fr	or	fra/fre	for	French
		frm	for	French, Middel (ca. 1400-1600)
		fro	for	French, Old (ca. 842-1400)
		cpf	for	French-based Creoles and pidgins (Other)
fy	or	fry	for	Frisian
		fur	for	Friulian
		ful	for	Fulah
		gaa	for	Ga (Gþ)
		gla	for	Gaelic
gd	or	gae/gdh	for	Gaelic (Scots)
gl			for	Galician
		gag/glg	for	Gallegan
		lug	for	Ganda
		gay	for	Gayo
		gez	for	Geez
ka	or	geo/kat	for	Georgian
de	or	deu/ger	for	German
		nds	for	German, Low
		gmh	for	German, Middle High (ca. 1050-1500)
		goh	for	German, Old High (ca. 750-1050)
		gem	for	Germanic (Other)

		kik	for	Gikuyu
		gil	for	Gilbertese
		gon	for	Gondi
		gor	for	Gorontalo
		got	for	Gothic
		grb	for	Grebo
el	or	grc	for	Greek, Ancient (to 1453)
		ell/gre	for	Greek, Modern (1453-)
kl	or	kal	for	Greenlandic
gn	or	gua/grn	for	Guarani (Guaraní)
gu	or	guj	for	Gujarati
		gwi	for	Gwich´in
		hai	for	Haida
		i-hak	for	Hakka
ha	or	hau	for	Hausa
		haw	for	Hawaiian
he	or	heb	for	Hebrew
		her	for	Herero
		hil	for	Hiligaynon
		him	for	Himachali
hi	or	hin	for	Hindi
		hmo	for	Hiri Motu
		hit	for	Hittite
hu	or	hun	for	Hungarian
		hup	for	Hupa
		iba	for	Iban
is	or	ice/isl	for	Icelandic
		ibo	for	Igbo
		ijo	for	Ijo
		ilo	for	Iloko
		nai	for	Indian, North American (Other)
		cai	for	Indian, Central American (Other)
		sai	for	Indian, South American (Other)
		inc	for	Indic (Other)
		ine	for	Indo-European (Other)
		ind	for	Indonesian
ia	or	int/ina	for	Interlingua (Int. Auxilary Lang. Assoc.)
ie	or	ile	for	Interlingue

iu	or	iku	for	Inuktitut (Eskimo)
ik	or	ipk	for	Inupiak (Inupiaq)
		ira	for	Iranian (Other)
ga	or	iri/gai	for	Irish
		gle	for	Irish
		mga	for	Irish, Middle (900-1200)
		sga	for	Irish, Old (to 900)
		iro	for	Iroquoian languages
it	or	ita	for	Italian
ja	or	jpn	for	Japanese
jv	or	jav/jaw	for	Javanese
		jrb	for	Judeo-Arabic
		jpr	for	Judeo-Persian
		kab	for	Kabyle
		kac	for	Kachin
		kal	for	Kalaallisut
		kam	for	Kamba
kn	or	kan	for	Kannada
		kau	for	Kanuri
		kaa	for	Kara-Kalpak
		kar	for	Karen
ks	or	kas	for	Kashmiri
		kaw	for	Kawi
kk	or	kaz	for	Kazakh
		kha	for	Khasi
km	or	cam/khm	for	Khmer (Cambodian)
		khi	for	Khoisan (Other)
		kho	for	Khotanese
		kik	for	Kikuyu
		kmb	for	Kimbundu
rw	or	kin	for	Kinyarwanda
		kir	for	Kirghiz
ky			for	Kirgiz
		x-klingon	for	Klingon(Star Trek)
		khm	for	Khmer (Cambodian)
		mkh	for	Khmer, Mon-Khmer (Other)
		kon	for	Kongo
		kok	for	Konkani

ko	or	kor	for	Korean
		kos	for	Kosraean
		kpe	for	Kpelle
		kro	for	Kru
		kua	for	Kuanyama
		kum	for	Kumyk
ku	or	kur	for	Kurdish
		kru	for	Kurukh
		kus	for	Kusaie
		kut	for	Kutenai
		lad	for	Ladino
		lah	for	Lahnda
		lam	for	Lamba
		lan/oci	for	Langue d'oc (post 1500)
		lao	for	Lao
lo			for	Laothian
		lap	for	Lapp languages(Lappish)
la	or	lat	for	Latin
lv	or	lav	for	Latvian
		ltz	for	Letzeburgesch
		lez	for	Lezghian
ln	or	lin	for	Lingala
lt	or	lit	for	Lithuania (Lithuanian)
		nds	for	Low German
		nds	for	Low Saxon
		loz	for	Lozi
		lub	for	Luba-Katanga
		lua	for	Luba-Lulua
		lui	for	Luiseno
		lun	for	Lunda
		luo	for	Luo (Kenya and Tanzania)
		lus	for	Lushai
mk	or	mac/mke	for	Macedonian
		mad	for	Madurese
		mag	for	Magahi
		mai	for	Maithili
		mak	for	Makasar
mg	or	mlg	for	Malagasy

ms	or	may/msa	for	Malay
ml	or	mal	for	Malayalam
mt	or	mlt	for	Maltese
		mdr	for	Mandar
		man	for	Mandingo
		mni	for	Manipuri
		mno	for	Manobo languages
		max	for	Manx
mi	or	mao/mri	for	Maori
mr	or	mar	for	Marathi
		mah	for	Marshall (Marshallese)
		mwr	for	Marwari
		mas	for	Masai
		myn	for	Mayan languages
		men	for	Mende
		mic	for	Micmac
		min	for	Minangkabau
		i-mingo	for	Mingo
		mis	for	Miscellaneous languages
		moh	for	Mohawk
mo	or	mol	for	Moldavian
		mkh	for	Mon-Khmer (Other)
		lol	for	Mongo
mn	or	mon	for	Mongolian
		mos	for	Mossi
		mul	for	Multiple languages
		mun	for	Munda languages
na	or	nau	for	Nauru
		nav	for	Navajo
		i-navaho	for	Navajo
		nde	for	Ndebele (Zimbabwe)
		nde	for	Ndebele, North
		nbl	for	Ndebele, South
		ndo	for	Ndonga
ne	or	nep	for	Nepali
		new	for	Newari
		nai	for	Nias
		nic	for	Niger-Kordofanian (Other)

		ssa	for	Nilo-Saharan (Other)
		niu	for	Niuean
		non	for	Norse, Old
		nai	for	North American Indian (Other)
		sme	for	Northern Sami
		nso	for	Northern Sohto
no	or	nor	for	Norwegian
		nob	for	Norwegian Bokmål
		nno	for	Norwegian Nynorsk
		no-bok	for	Norwegian "BookLanugage"
		no-nyn	for	Norwegian "New Norwegian"
		nub	for	Nubian languages
		nym	for	Nyamwezi
		tog	for	Nyasa-Tonga
		nya	for	Nyanja
		nyn	for	Nyankole
		nyo	for	Nyoro
		nzi	for	Nzima
oc	or	oci	for	Occitan
		oji	for	Ojibwa
		non	for	Old Norse
		peo	for	Old Persian (ca. 600-400 B.C.)
or	or	ori	for	Oriya
om	or	gal/orm	for	Oromo
		osa	for	Osage
		oss	for	Ossetic (Ossetian)
		oto	for	Otomian languages
		ota	for	Ottoman-Turkish
		pal	for	Pahlavi
		pau	for	Palauan
		pli	for	Pali
		pam	for	Pampanga
		pag	for	Pangasinan
		pan	for	Panjabi
		pap	for	Papiamento
		paa	for	Papuan-Australian (Other)
ps			for	Pashto (Pushto)
fa	or	per/fas	for	Persian (Farsi)

		peo	for	Persian, Old (ca. 600-400 B.C.)
		phi	for	Philippine (Other)
		phn	for	Phoenician
		pon	for	Pohnpeian
pl	or	pol	for	Polish
		pon	for	Ponape
pt	or	por	for	Portuguese
		cpp	for	Portuguese-based Creoles and pidgins
		pra	for	Prakrit languages
		oci	for	Provençal
		pro	for	Provencal, Old (to 1500)
pa			for	Punjabi
ps	or	pus	for	Pushto (Pashto)
qu	or	que	for	Quechua
		raj	for	Rajasthani
		rap	for	Rapanui
		rar	for	Rarotongan
		qaa-qtz	for	Reserved for local user
rm	or	roh	for	Rhaeto-Romance
		roa	for	Romance (Other)
ro	or	ron/rum	for	Romanian
		rom	for	Romany
		run	for	Rundi
ru	or	rus	for	Russian
rw			for	Rwanda, Kinya
		ssa	for	Saharan, Nilo-Saharan (Other)
		sal	for	Salishan languages
		sam	for	Samaritan Aramaic
		i-sami-no	for	Sami, North (Norway)
		smi	for	Sami languages (Other)
sm	or	sao/smo	for	Samoan
		sad	for	Sandawe
sg	or	sag	for	Sangho (Sango)
sa	or	san	for	Sanskrit
		sat	for	Santali
		srd	for	Sardinian
		sas	for	Sasak
		nds	for	Saxon, Low

		sco	for	Scots
gd	or	gae/gdh	for	Scots Gaelic
		gla	for	Scottish Gaelic
		sel	for	Selkup
		sem	for	Semitic (Other)
sr			for	Serbian
		scc	for	Serbo-Croatian (Cyrillic)
sh	or	scr	for	Serbo-Croatian (Roman)
		srr	for	Serer
st			for	Sesotho
tn			for	Setswana
		shn	for	Shan
sn	or	sho/sna	for	Shona
		sid	for	Sidamo
		sgn	for	Sign languages
		bla	for	Siksika
sd	or	snd	for	Sindhi
si	or	sin	for	Singhalese
		snh	for	Sinhalese
		sit	for	Sino-Tibetan (Other)
		sio	for	Siouan languages
ss			for	Siswati
		den	for	Slave (Athapascan)
		chu	for	Slavic, Church
		sla	for	Slavic (Other)
sk	or	slk/slo	for	Slovak
sl	or	slv	for	Slovenian
		sog	for	Sogdian
so	or	som	for	Somali
		son	for	Songhai
		snk	for	Soninke
		wen	for	Sorbian languages
		nso	for	Sotho, Northern
		sot	for	Sotho, Southern
		sso	for	Sotho
		sai	for	South American Indian (Other)
es	or	esl/spa	for	Spanish
		suk	for	Sukuma

		sux	for	Sumerian
su	or	sun	for	Sundanese
		sus	for	Susu
sw	or	swa	for	Swahili
		ssw	for	Swati
		swz	for	Swazi
sv	or	sve/swe	for	Swedish
		syr	for	Syriac
tl	or	tag/tgl	for	Tagalog
		tah	for	Tahitian
		tai	for	Tai (Other)
		hai	for	Taiwan (Hakka)
		i-tsu	for	Taiwan (Tsou)
tg	or	taj/tgk	for	Tajik
		tmh	for	Tamashek
ta	or	tam	for	Tamil
tt	or	tar/tat	for	Tatar
te	or	tel	for	Telugu
		ter	for	Tereno
		tet	for	Tetum
th	or	tha	for	Thai
bo	or	bod/tib	for	Tibetan
		sit	for	Tibetan, Sino-Tibetan (Other)
		tig	for	Tigre
ti	or	tir	for	Tigrinya
		tem	for	Timne
		tiv	for	Tivi
		tli	for	Tlingit
		tpi	for	Tok Pisin
		tkl	for	Tokelau
to			for	Tonga
		tog	for	Tonga (Nyasa)
		ton	for	Tonga (Tonga Islands)
		tru	for	Truk
		tsi	for	Tsimshian
ts	or	tso	for	Tsonga
		i-tsu	for	Tsou (Taiwan)
		tsw/tsn	for	Tswana

		tum	for	Tumbuka
tr	or	tur	for	Turkish
		ota	for	Turkish, Ottoman (1500-1928)
tk	or	tuk	for	Turkmen
		tvl	for	Tuvalu
		tyv	for	Tuvinian
tw	or	twi	for	Twi
		uga	for	Ugaritic
		uig	for	Uighur
ug			for	Uigur
uk	or	ukr	for	Ukrainian
		umb	for	Umbundu
		und	for	Undetermined
ur	or	urd	for	Urdu
uz	or	uzb	for	Uzbek
		vai	for	Vai
		ven	for	Venda
vi	or	vie	for	Vietnamese
vo	or	vol	for	Volapuk (Volapük)
		vot	for	Votic
		wak	for	Wakashan languages
		wal	for	Walamo
		war	for	Waray
		was	for	Washo
cy	or	cym/wel	for	Welsh
wo	or	wol	for	Wolof
xh	or	xho	for	Xhosa
		sah	for	Yakut
		yao	for	Yao
		yap	for	Yap (Yapese)
yi	or	yid	for	Yiddish
yo	or	yor	for	Yoruba
		ypk	for	Yupik languages
		znd	for	Zande
		zap	for	Zapotec
		zen	for	Zenaga
za	or	zha	for	Zhuang
zu	or	zul	for	Zulu

zun	for	Zuni

Using the ISO Alpha-2 and Alpha-3 country codes as a way of assigning names to secondary eight bit data character sets, is one possible way of producing the secondary chordic combinations sets for any and all language alphabet scripts or character sets. Entry of the preferred Alpha-2 and Alpha-3 country codes exits the standard eight bit binary chordic data entry method mode, found in this patent application, and enters a secondary eight bit binary chordic data entry method mode set. Languages with extensive alphabet scripts or character sets, like Chinese, requires an eight bit binary data chord followed by an extra secondary eight bit binary data chord. Reassigning the present eight bit binary code invention arrangement, without departing from the spirit and scope of the invention as a whole, produces all language alphabet scripts or character sets.

AF	or	AFG	for	Afghanistan
AL	or	ALB	for	Albania
DZ	or	DZA	for	Algeria
AS	or	ASM	for	American Samoa
AD	or	AND	for	Andorra
AO	or	AGO	for	Angola
AI	or	AIA	for	Anguilla
AQ			for	Antartica
AG	or	ATG	for	Antigua and Barbuda
AR	or	ARG	for	Argentina
AM	or	ARM	for	Armenia
AW	or	ABW	for	Aruba
AU	or	AUS	for	Australia
AT	or	AUT	for	Austria

AZ	or	AZE	for	Azerbaijan
BS	or	BHS	for	Bahamas
BH	or	BHR	for	Bahrain
BD	or	BGD	for	Bangladesh
BB	or	BRB	for	Barbados
BY	or	BLR	for	Belarus
BE	or	BEL	for	Belgium
BZ	or	BLZ	for	Belize
BJ	or	BEN	for	Benin
BM	or	BMU	for	Bermuda
BT	or	BTN	for	Bhutan
BO	or	BOL	for	Bolivia
BA	or	BIH	for	Bosnia and Herzegovina
BW	or	BWA	for	Botswana
BV			for	Bouvet Island
BR	or	BRA	for	Brazil
IO			for	British Indian Ocean Territory
VG	or	VGB	for	British Virgin Islands
BN	or	BRN	for	Brunei Darussalam
BG	or	BGR	for	Bulgaria
BF	or	BFA	for	Burkina Faso
BI	or	BDI	for	Burundi
KH	or	KHM	for	Cambodia
CM	or	CMR	for	Cameroon
CA	or	CAN	for	Canada
CV	or	CPV	for	Cape Verde
KY	or	CYM	for	Cayman Islands
CF	or	CAF	for	Central African Republic
TD	or	TCD	for	Chad
CL	or	CHL	for	Chile
CN	or	CHN	for	China
HK	or	HKG	for	HongKong Special Administrative
		MAC	for	Macao Special Administrative Region of China
CX			for	Christmas Island
CC			for	Cocos (Keeling) Islands
CO	or	COL	for	Colombia
KM	or	COM	for	Comoros
CG	or	COG	for	Congo

CD	or	COD	for	Congo, The Democratic Republic of
CK	or	COK	for	Cook Islands
CR	or	CRI	for	Costa Rica
CI	or	CIV	for	Côte d'Ivoire
HR	or	HRV	for	Croatia
CU	or	CUB	for	Cuba
CY	or	CYP	for	Cyprus
CZ	or	CZE	for	Czech Republic
KP	or	PRK	for	Democratic People's Republic of Korea
CD	or	COD	for	Democratic Republic of the Congo
DK	or	DNK	for	Denmark
DJ	or	DJI	for	Djibouti
DM	or	DMA	for	Dominica
DO	or	DOM	for	Dominican Republic
TP	or	TMP	for	East Timor
EC	or	ECU	for	Ecuador
EG	or	EGY	for	Egypt
SV	or	SLV	for	El Salvador
GQ	or	GNQ	for	Equatorial Guinea
ER	or	ERI	for	Eritrea
EE	or	EST	for	Estonia
ET	or	ETH	for	Ethiopia
FO	or	FRO	for	Færoe Islands
FK	or	FLK	for	Falkland Islands (Malvinas)
FJ	or	FJI	for	Fiji
FI	or	FIN	for	Finland
FR	or	FRA	for	France
GF	or	GUF	for	French Guiana
PF	or	PYF	for	French Polynesia
TF			for	French Southern Territories
GA	or	GAB	for	Gabon
GM	or	GMB	for	Gambia
GE	or	GEO	for	Georgia
DE	or	DEU	for	Germany
GH	or	GHA	for	Ghana
GI	or	GIB	for	Gibraltar
GR	or	GRC	for	Greece
GL	or	GRL	for	Greenland

GD	or	GRD	for	Grenada
GP	or	GLP	for	Guadeloupe
GU	or	GUM	for	Guam
GT	or	GTM	for	Guatemala
GN	or	GIN	for	Guinea
GW	or	GNB	for	Guinea-Bissau
GY	or	GUY	for	Guyana
HT	or	HTI	for	Haiti
HM			for	Heard Island and McDonald Islands
VA	or	VAT	for	Holy See (see Vatican City State)
HN	or	HND	for	Honduras
HK	or	HKG	for	Hong Kong
HU	or	HUN	for	Hungary
IS	or	ISL	for	Iceland
IN	or	IND	for	India
ID	or	IDN	for	Indonesia
IR	or	IRN	for	Iran (Islamic Republic of)
IQ	or	IRQ	for	Iraq
IE	or	IRL	for	Ireland
IL	or	ISR	for	Israel
IT	or	ITA	for	Italy
JM	or	JAM	for	Jamaica
JP	or	JPN	for	Japan
JO	or	JOr	for	Jordan
KZ	or	KAZ	for	Kazakhstan
KE	or	KEN	for	Kenya
KI	or	KIR	for	Kiribati
KP	or	PRK	for	Korea, Democratic People's Republic of
KR	or	KOr	for	Korea, Republic of
KW	or	KWT	for	Kuwait
KG	or	KGZ	for	Kyrgyzstan
LA	or	LAO	for	Lao People's Democratic Republic
LV	or	LVA	for	Latvia
LB	or	LBN	for	Lebanon
LS	or	LSO	for	Lesotho
LR	or	LBR	for	Liberia
LY	or	LBY	for	Libyan Arab Jamahiriya
LI	or	LIE	for	Liechtenstein

LT	or	LTU	for	Lithuania
LU	or	LUX	for	Luxembourg
MO			for	Macau
MK	or	MKD	for	Macedonia, The former Yugoslav Republic of
MG	or	MDG	for	Madagascar
MW	or	MWI	for	Malawi
MY	or	MYS	for	Malaysia
MV	or	MDV	for	Maldives
ML	or	MLI	for	Mali
MT	or	MLT	for	Malta
MH	or	MHL	for	Marshall Islands
MQ	or	MTQ	for	Martinique
MR	or	MRT	for	Mauritania
MU	or	MUS	for	Mauritius
YT			for	Mayotte
MX	or	MEX	for	Mexico
FM	or	FSM	for	Micronesia, Federated States of
MD	or	MDA	for	Moldova, Republic of
MC	or	MCO	for	Monaco
MN	or	MNG	for	Mongolia
MS	or	MSR	for	Montserrat
MA	or	MAR	for	Morocco
MZ	or	MOZ	for	Mozambique
MM	or	MMR	for	Myanmar
NA	or	NAM	for	Namibia
NR	or	NRU	for	Nauru
NP	or	NPL	for	Nepal
NL	or	NLD	for	Netherlands
AN	or	ANT	for	Netherlands Antilles
NC	or	NCL	for	New Caledonia
NZ	or	NZL	for	New Zealand
NI	or	NIC	for	Nicaragua
NE	or	NER	for	Niger
NG	or	NGA	for	Nigeria
NU	or	NIU	for	Niue
NF	or	NFK	for	Norfolk Island
MP	or	MNP	for	Northern Mariana Islands
NO	or	NOr	for	Norway

OM	or	OMN	for	Oman
PK	or	PAK	for	Pakistan
PW	or	PLW	for	Palau
PS	or	PSE	for	Palestinian Occupied Territory
PA	or	PAN	for	Panama
PG	or	PNG	for	Papua New Guinea
PY	or	PRY	for	Paraguay
PE	or	PER	for	Peru
PH	or	PHL	for	Philippines
PN	or	PCN	for	Pitcairn
PL	or	POL	for	Poland
PT	or	PRT	for	Portugal
PR	or	PRI	for	Puerto Rico
QA	or	QAT	for	Qatar
KR	or	KOr	for	Republic of Korea
MD	or	MDA	for	Republic of Moldova
RE	or	REU	for	Réunion
RO	or	ROM	for	Romania
RU	or	RUS	for	Russian Federation
RW	or	RWA	for	Rwanda
SH	or	SHN	for	Saint Helena
KN	or	KNA	for	Saint Kitts and Nevis
LC	or	LCA	for	Saint Lucia
PM	or	SPM	for	Saint Pierre and Miquelon
VC	or	VCT	for	Saint Vincent and the Grenadines
WS	or	WSM	for	Samoa
SM	or	SMR	for	San Marino
ST	or	STP	for	Sao Tome and Principe
SA	or	SAU	for	Saudi Arabia
SN	or	SEN	for	Senegal
SC	or	SYC	for	Seychelles
SL	or	SLE	for	Sierra Leone
SG	or	SGP	for	Singapore
SK	or	SVK	for	Slovakia
SI	or	SVN	for	Slovenia
SB	or	SLB	for	Solomon Islands
SO	or	SOM	for	Somalia
ZA	or	ZAF	for	South Africa

GS			for	South Georgia & the South Sandwich Islands
ES	or	ESP	for	Spain
LK	or	LKA	for	Sri Lanka
SD	or	SDN	for	Sudan
SR	or	SUR	for	Suriname
SJ	or	SJM	for	Svalbard and Jan Mayen Islands
SZ	or	SWZ	for	Swaziland
SE	or	SWE	for	Sweden
CH	or	CHE	for	Switzerland
SY	or	SYR	for	Syrian Arab Republic
TW	or	TWN	for	Taiwan, Province of China
TJ	or	TJK	for	Tajikistan
TZ	or	TZA	for	Tanzania, United Republic of
TH	or	THA	for	Thailand
MK	or	MKD	for	The former Yugoslav Republic of Macedonia
TG	or	TGO	for	Togo
TK	or	TKL	for	Tokelau
TO	or	TON	for	Tonga
TT	or	TTO	for	Trinidad and Tobago
TN	or	TUN	for	Tunisia
TR	or	TUR	for	Turkey
TM	or	TKM	for	Turkmenistan
TC	or	TCA	for	Turks and Caicos Islands
TV	or	TUV	for	Tuvalu
UG	or	UGA	for	Uganda
UA	or	UKR	for	Ukraine
AE	or	ARE	for	United Arab Emirates
GB	or	GBR	for	United Kingdom
TZ	or	TZA	for	United Republic of Tanzania
US	or	USA	for	United States
UM			for	United States Minor Outlying Islands
VI	or	VIR	for	United States Virgin Islands
UY	or	URY	for	Uruguay
UZ	or	UZB	for	Uzbekistan
VU	or	VUT	for	Vanuatu
VA	or	VAT	for	Vatican City State (see Holy See)
VE	or	VEN	for	Venezuela
VN	or	VNM	for	Viet Nam

VG	or	VGB	for	Virgin Islands, British
VI	or	VIR	for	Virgin Islands, U.S.
WF	or	WLF	for	Wallis and Futuna Islands
EH	or	ESH	for	Western Sahara
YE	or	YEM	for	Yemen
YU	or	YUG	for	Yugoslavia
CG	or	COG	for	Zaire (The Democratic Republic of Congo)
ZM	or	ZMB	for	Zambia
ZW	or	ZWE	for	Zimbabwe

Using the country's area code as a way of assigning names to secondary eight bit data character sets, is one possible way of producing the secondary chordic combinations sets for any and all language alphabet scripts or character sets. Entry of the preferred country area codes exits the standard eight bit binary chordic data entry method mode, found in this patent application, and enters a secondary eight bit binary chordic data entry method mode set. Languages with extensive alphabet scripts or character sets, like Chinese, requires an eight bit binary data chord followed by an extra secondary eight bit binary data chord. Reassigning the present eight bit binary code invention arrangement, without departing from the spirit and scope of the invention as a whole, produces all language alphabet scripts or character sets.

93	for	Afghanistan
355	for	Albania
213	for	Algeria
684	for	American Samoa
376	for	Andorra
244	for	Angola
54	for	Argentina

374	for	Armenia
297	for	Aruba
247	for	Ascension
61	for	Australia
672	for	Australian Ext. Terr.
43	for	Austria
994	for	Azerbaijan
973	for	Bahrain
880	for	Bangladesh
375	for	Belarus
32	for	Belgium
501	for	Belize
229	for	Benin
975	for	Bhutan
591	for	Bolivia
387	for	Bosnia - Herzegovina
267	for	Botswana
55	for	Brazil
673	for	Brunei Darussalam
359	for	Bulgaria
226	for	Burkina Faso
257	for	Burundi
855	for	Cambodia
237	for	Cameroon
238	for	Cape Verde
236	for	Central African Rep.
235	for	Chad
56	for	Chile
86	for	China (People's Rep.)
57	for	Colombia
269	for	Comoros Is.
242	for	Congo
682	for	Cook Islands
506	for	Costa Rica
385	for	Croatia
53	for	Cuba
357	for	Cyprus
420	for	Czech Republic

45	for	Denmark
246	for	Diego Garcia
253	for	Djibouti
670	for	East Timor
593	for	Ecuador
20	for	Egypt
503	for	El Salvador
291	for	Eritrea
372	for	Estonia
251	for	Ethiopia
240	for	Equatorial Guinea
691	for	F.S. Micronesia
298	for	Færoe Islands
500	for	Falkland Islands
679	for	Fiji
358	for	Finland
33	for	France
689	for	French Polynesia
241	for	Gabon
220	for	Gambia
995	for	Georgia (Republic of)
49	for	Germany
233	for	Ghana
350	for	Gibraltar
30	for	Greece
299	for	Greenland
590	for	Guadeloupe
502	for	Guatemala
594	for	Guiana (French)
224	for	Guinea
245	for	Guinea-Bissau
592	for	Guyana
509	for	Haiti
504	for	Honduras
852	for	Hong Kong
36	for	Hungary
354	for	Iceland
91	for	India

62	for	Indonesia
98	for	Iran
964	for	Iraq
353	for	Ireland
972	for	Israel
39	for	Italy
225	for	Ivory Coast
81	for	Japan
962	for	Jordan
997	for	Kazakhstan
254	for	Kenya
686	for	Kiribati
850	for	Korea (North)
82	for	Korea (South)
965	for	Kuwait
996	for	Kyrgyz Republic
856	for	Laos
371	for	Latvia
961	for	Lebanon
266	for	Lesotho
231	for	Liberia
218	for	Libya
423	for	Liechtenstein
370	for	Lithuania
352	for	Luxembourg
853	for	Macau
389	for	Macedonia (FYR)
261	for	Madagascar
265	for	Malawi
60	for	Malaysia
960	for	Maldives
223	for	Mali
356	for	Malta
692	for	Marshall Islands
596	for	Martinique
222	for	Mauritania
230	for	Mauritius
269	for	Mayotte (Comoros Is.)

52	for	Mexico
691	for	Micronesia
373	for	Moldova
377	for	Monaco
976	for	Mongolia
212	for	Morocco
258	for	Mozambique
95	for	Myanmar (Burma)
264	for	Namibia
674	for	Nauru
977	for	Nepal
31	for	Netherlands
599	for	Netherlands Antilles
687	for	New Caledonia
64	for	New Zealand
505	for	Nicaragua
227	for	Niger
234	for	Nigeria
683	for	Niue
1	for	North America
47	for	Norway
968	for	Oman
92	for	Pakistan
680	for	Palau
970	for	Palestine
507	for	Panama
675	for	Papua New Guinea
595	for	Paraguay
51	for	Peru
63	for	Philippines
48	for	Poland
351	for	Portugal
974	for	Qatar
262	for	Reunion Island
40	for	Romania
7	for	Russia (Kazakhstan)
250	for	Rwanda
290	for	Saint Helena

378	for	San Marino
239	for	São Tomé & Principé
881	for	Satellite services
966	for	Saudi Arabia
221	for	Senegal
248	for	Seychelles
232	for	Sierra Leone
65	for	Singapore
421	for	Slovakia
386	for	Slovenia
677	for	Solomon Islands
252	for	Somalia
27	for	South Africa
34	for	Spain
94	for	Sri Lanka
508	for	St. Pierre & Miquélon
249	for	Sudan
597	for	Suriname
268	for	Swaziland
46	for	Sweden
41	for	Switzerland (Liecht.)
963	for	Syria
886	for	Taiwan (reserved)
992	for	Tajikistan
255	for	Tanzania
66	for	Thailand
228	for	Togo
690	for	Tokelau
676	for	Tonga
216	for	Tunisia
90	for	Turkey
993	for	Turkmenistan
688	for	Tuvalu
256	for	Uganda
380	for	Ukraine
851	for	unassigned
971	for	United Arab Emirates
44	for	United Kingdom

998	for	Uzbekistan
678	for	Vanuatu
379	for	Vatican City
58	for	Venezuela
84	for	Viet Nam
681	for	Wallis and Futuna
685	for	Western Samoa
967	for	Yemen
381	for	Yugoslavia
243	for	Zaire
260	for	Zambia
263	for	Zimbabwe

It is possible to choose a variety of scripts and data entry choices such as Latin based language alphabets, multinational languages, any and all foreign languages with less than 65,025 (255 × 255) characters in the language, font set, monetary symbols set, phonetic symbols set, typographic symbols set, iconic symbols set, math symbols set, scientific symbols set, box drawing symbols set, graphics, macros, etc. Exiting a mode or any modes can be achieved by using the "shift out" (#175) function.

The eight bit binary code can also be used as a finger braille type of communication by the deaf-blind, where the transmitter transmits (Finger Braille) the mirror imaged binary data chord from the left hand onto the right hand and the mirror imaged binary data chord from the right hand onto the mirror imaged left hand, so the receiver receives (Fingers) the binary data in its preferred embodiment. This physiological aspect of this method is that the transmitter already knows what they are going to transmit, so they simply switch the four digit binary chords on either hand so that the receiver has more time to easily process the binary data into words and other types of communication. If an individual is missing a thumb digit, the system can be implemented by using the index, middle, ring and little (pinkie) digit of the left and right hands. When used as a form of binary braille finger spelling for the deaf-blind, two individuals face each other, and place their hands in the following touching arrangement: transmitters left hand to receivers right hand and transmitters right hand to receivers left hand, thumb to thumb, digit to digit, etc. When transmitting data, the transmitter transmits binary hand chords from the preferred left hand group to the right hand group and from the preferred right hand group to the left hand group. For example, when transmitting the lower-case letter "b" (#40) chord (0001 0100), the transmitter transmits the mirror image binary chord for the upper-case vowel "E" (#20)(0010 1000). The receiver will then receive the lower case letter "b". The technique for producing vowel and consonant chords to communicate to a deaf-blind individual is explained in the Finger Braille tables found in FIGS. 1A-1P. An easier to learn arrangement is explained in the Finger Braille tables found in FIGS. 3A-3L.

The system and method of the invention is logically developed and implemented so that it is easy to learn and quick to use, especially for those who are handicapped or sight impaired.

These and other features of the present invention will be more fully understood by referencing the drawings.

The system and method can use a variety of different keyboards, including some that are already on the market. For example, the split space bar QWERTY keyboard needs only to be reprogrammed. Additional instructions can be entered by the keyboard system and method according to the preferred embodiment which are consistent with instructions that also can be produced with the QWERTY keyboard, Dvorak keyboard, or other types of Latin based alphabet foreign language keyboards such as the Spanish, French, German, Italian, Swedish/Finnish, Canadian bilingual along with many other types of Latin based alphabet keyboards known to those of ordinary skill in the art, as long as they have as split space bar or a way of using at least eight keys or sensors to enter data. Other known keyboards and data entry devices can also be employed for the same purpose of entering information into a word processor or computer, such as typewriters, braille writers, word processors, phones, computers systems, laptops, keyboards, touch screen input devices, PDAs, cell phones, virtual keyboards and the like.

The most convenient way to employ the improved keyboard system is to provide an interface or software which translates the eight digit binary code into a standard computer code such as ASCII, extended ASCII or EBCDIC, which a conventional computer will be able to recognize. This can be done external to the computer through a hardwired interface, internal to the computer through an electronic interpreter or through a software program using the translation instructions found in FIGS. 1A-1P using source code programming techniques that are very well known to those of ordinary skill in the art.

In summary, the virtual keyboard invention, using an eight bit binary code data entry system and method, according to the preferred embodiment and alternative embodiments of the invention, is relatively easy to learn and very easy to use, especially by handicapped and visualy impaired individuals. The vowels, consonants, numbers, etc. are produced in a unique and logical way that makes them easy to learn and remember, and also quick to implement. Other features and functions of the invention achieve the same result.

While the invention has been described with reference to the preferred embodiment thereof, it will be appreciated by those of ordinary skill in the art that various modifications can be made to the system and method of the invention without departing from the spirit and scope of the invention as a whole.

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